

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for determining the presence of colorectal tumors or pre-cancerous lesions in a human subject, which comprises:

a) extracting DNA from stool samples;

b) amplifying by PCR ~~the at least three different DNA fragments with a length of 100 base pairs or more, using deoxynucleotide triphosphates or primers labelled with fluorescent molecule;~~

1) p53 gene fragments corresponding to exons 5-8 using the following pairs of primers labeled with fluorescent markers:

1)ctcttctctgcagtactccccctgc(SEQ ID NO:1) and

gccccagctgctcaccatcgcta (SEQ ID NO:2),

2)gattgctcttaggtctggccctc (SEQ ID NO: 3) and

ggccactgacaaccacccttaacc(SEQ ID NO: 4),

3)gcgttgctctcctaggttggtctctg (SEQ ID NO: 5) and

caagtggctcctgacctggagtc (SEQ ID NO: 6),

4)acctgatttccttactgcctctggc(SEQ ID NO: 7) and

gtcctgcttgcttacctcgcttagt (SEQ ID NO: 8),

and

ii) APC gene fragments using the following pairs of primers labeled with fluorescent markers:

1)aactaccatccagcaacaga (SEQ ID NO: 9) and

taatttggcataaggcatag (SEQ ID NO: 10),

2)cagttgaactctggaaggca (SEQ ID NO: 11) and

tgacacaaagactggcttac (SEQ ID NO: 12),

3)gatgtaatcagacgacacag(SEQ ID NO: 13) and

ggcaatcgaacgactctcaa(SEQ ID NO: 14),

4)cagtgatcttccagatagcc(SEQ ID NO: 15) and

aaatggctcatcgaggctca(SEQ ID NO: 16);

c) quantifying the amplified fragments and identifying the amplified fragments as amplicons;

d) calculating the total amount of different amplicons;

and

e) comparing the ~~values obtained in (d)~~ the total amount of amplicons with a reference value determined on the basis of case series comprising healthy subjects and patients affected by colorectal tumors, wherein a total amount of amplicons higher than the reference value is indicative of the presence of colorectal tumors ~~or pre-cancerous lesions~~ in said human subject.

2-8. (cancelled)

9. (previously presented) The method according to claim 1, wherein the amplicon quantities are interpolated on a calibration curve obtained from known DNA amounts.

10. (previously presented) The method according to claim 1, wherein the amplicons are quantified with an automatic sequencer/analyser or using fluorimetric, colorimetric, radioactive or spectrophotometric detection systems.

11. (cancelled)

12. (withdrawn-currently amended) A kit containing for determining the presence of colorectal tumors in a human subject, comprising:

oligonucleotides_i

labelling agents_i

a thermostable DNA polymerase_i and

user instructions to carry out the method of claim 1.

13-22. (cancelled)